



Advanced Construction Materials and Technologies for a Sustainable Future

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Message from the Guest Editors

This Special Issue, entitled “*Advanced Construction Materials and Technologies for a Sustainable Future*”, covers various research topics, such as (but not limited to):

- *Sustainable materials and practices*
- *Biodegradable and Recyclable Construction Materials*
- *Waste Management and Circular Economy*
- *Energy-Efficient Building Systems*
- *Emerging Technologies and Innovations*
- *Nanotechnology in Construction*
- *Structural Health Monitoring*
- *Durability and Longevity of Innovative Construction Materials*
- *Life cycle assessment of sustainable buildings and materials*
- *Cost benefit analysis in construction*
- *Case Studies of Forward-Looking Projects*
- *Real-Time Data Analysis and Predictive in Manufacturing and Maintenance*
- *Advanced machine learning techniques and digital fabrication*
- *Policies and International Agreements*
- *Education and Training for Sustainable Constructions*





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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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